



PROFESSIONAL WEATHER STATION

REF.: **SM51PRO**

- USER MANUAL -

Thank you for purchasing this weather station. Please read the operating instructions carefully to familiarize yourself with its features and his installation.

PACKAGE CONTENTS

Carefully unpack and remove the contents:

- 1x weather station main unit
- 1x stainless steel mast
- 1x thermo-hygro sensor
- 1x rain sensor
- 1x wind speed sensor
- 1x wind direction sensor
- Mounting screws
- Stainless steel accessory for fixing the mast and screws.

TECHNICAL DETAILS

- Seven keys: MODE (x2), +, -, ALARM, ALERT, SNOOZE/LIGHT
- Radio controlled clock
- Automatic receiving of time signal DCF77 to display exactest time
- Automatically switches to/from daylight saving time (summer/winter time)
- Time display in 12/24 format
- +/-12 total 24 adjustable time zones
- Continuous perpetual calendar up to 2099
- Display of Date, Month and Day of week
- Day of week display available in 7 languages : German, English, Italian, French, Dutch Spanish, Danish
- Dual alarm with snooze function (5 minutes alarm interruption)
- 5 weather forecast: sunny, partly sunny, cloudy, rainy, storm
- Barometer and bar and data of 12 hours history for air pressure
- Indoor /outdoor temperature and humidity with trend

- Max./min. of temperature and humidity
- Thermometer measuring range inside: °C to +50 °C , outside -20°C~60 °C
- Temperature display elective in °C or °F
- Temperature alert for indoor and outdoor
- Living space humidity
- Moon phase
- Wind speed in mph /kmh, wind speed 0~256kmh
- Wind direction in 16 directions
- Rainfall in mm and inch and display of 1hour, 24hour, TOTAL.
Rain volume (0~999.9mm)
- Low battery indication
- Blue background illumination LED
- Main unit batteries: 2 x AA 1.5V (not included)

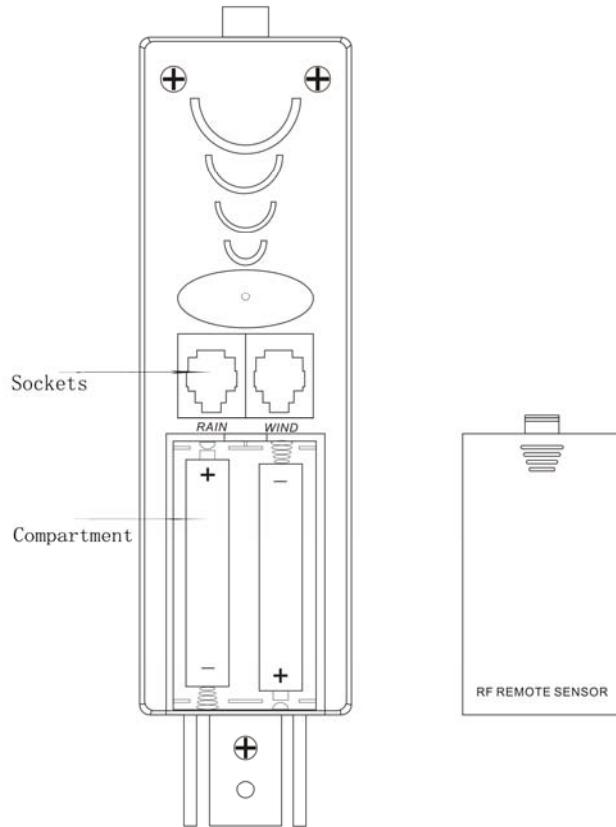
Outdoor sensor:

- Frequency: 433 MHz
- Transmission range: 100 meters in open area.
** Actual distance may be varied depending upon the environment, it will be shortened if with interference , such as concrete wall etc.
- Batteries: 2 x AA 1.5V (not included)

INSTALLATION

Installing the Batteries

- Open the main unit battery cover located at the back of the unit and insert 2XAA batteries into the battery compartment and close the battery cover.
- Pull away the shower proof casing of the thermo-hygro sensor to reveal the 2 sockets.(for the wind sensor and rain sensor)
- Connect the attached cable 1 cable from wind speed sensor insert into the socket of wind direction sensor 2 cable from wind direction and cable from rain sensors to the corresponding sockets of the thermo-hygro sensor by clicking them into place. Make sure that rain and wind cables are connected to the correct sockets.



Notes:

- First insert the batteries of main unit, then insert the batteries of the outdoor sensor in 3 minutes after the main unit is powered on, to assure of the sensor data received well.
In case of the outdoor sensor data received failure, please press **ALARM** key for more than 3 seconds to synchronize the RF signal.
- Every time the batteries are replaced, the main unit will lose all the weather data.
- Every time the batteries are replaced, the thermo-hygro sensor will synchronize with the main unit again. You must press the **ALARM** key for more than 3 seconds to synchronize the RF signal.
- In case of any failure of RF, please reset the sensor to and press **ALARM** receive again.

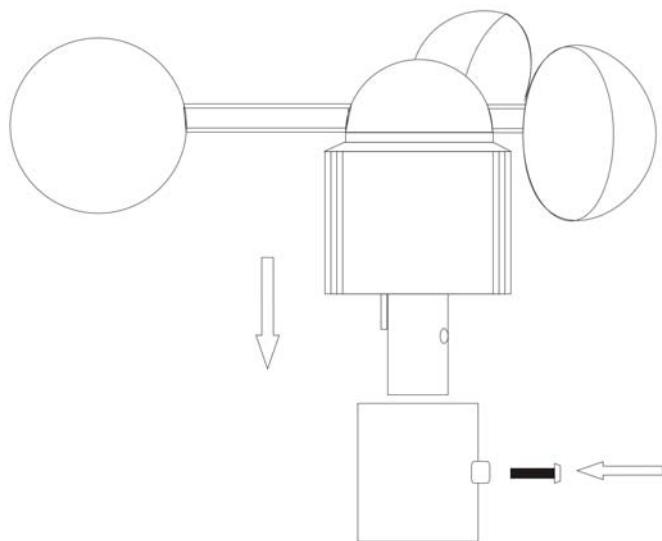
Mounting the main unit

The main unit can be placed onto any flat surface or wall mounted at the desired location by hanging hole, it is important to check that the radio signal can be received before mounting.

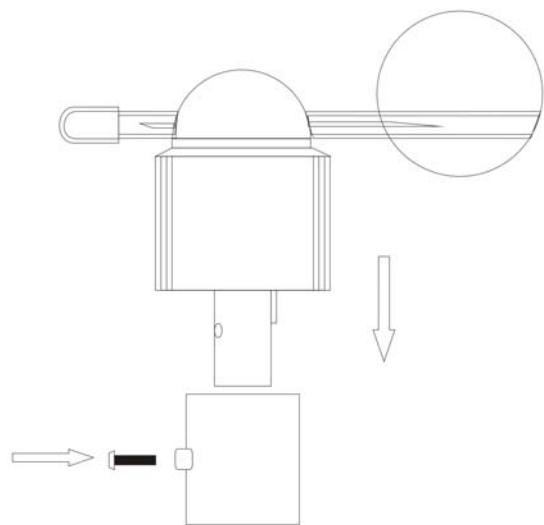
Mounting the outdoor sensor onto the stainless steel mast

For accurate results, the outdoor sensor mast should be securely mounted onto a horizontal surface and in an open area away from trees and other coverings where rainfall or wind speed may be reduced causing inaccurate reading.

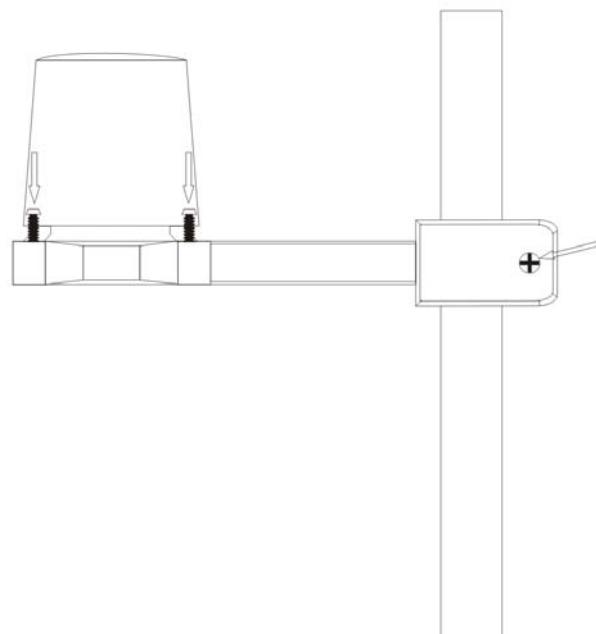
- 1. Mounting the wind speed sensor to the first plastic bracket:** first check the wind-fan can rotate freely before fixing. The wind speed sensor should now be mounted onto the bracket provided to allow the wind to travel around the sensor unhindered from all directions. please follow the below display :



- 2. Mounting the wind direction sensor to the first plastic bracket:** first check the wind direction sensor before fixing, there is one cable from wind speed sensor, please insert it into the socket under the wind direction sensor. Please follow the below display:

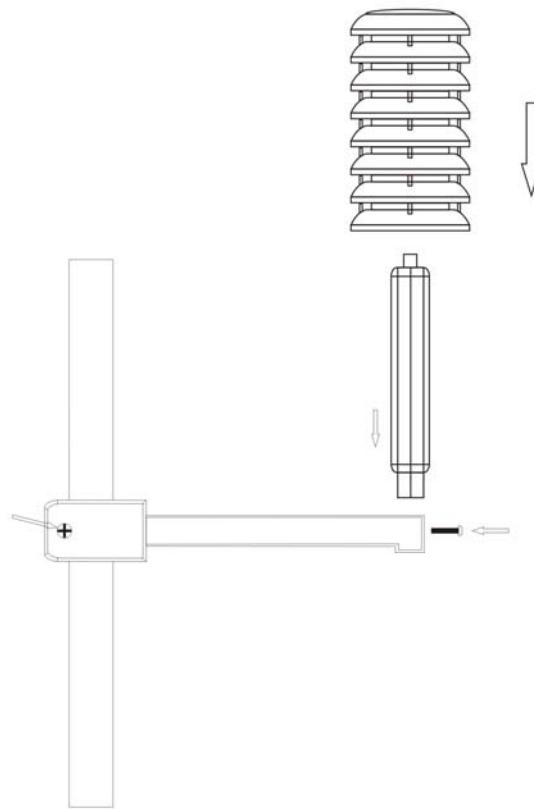


3. Mounting the rain sensor to the second plastic bracket: there are vertical engraved lines at the bottom edge of the round cover and the sensor part, you only need adjust the two line into one position, then turn clockwise, the rain sensor part will be connected well, then fix them with 4 screws onto the plastic bracket (don't use only 2 screws) please follow the below dispay:



4. Mounting the thermo-hygro sensor to the third plastic bracket: once the wind sensors and rain sensor are fixed onto the bracket, connect the cables to the

corresponding thermo-hygro sensor sockets with the plugs, so that data can be transmitted to the main unit ,then put the house-like cover onto the thermo-hygro sensor, please follow the below display:

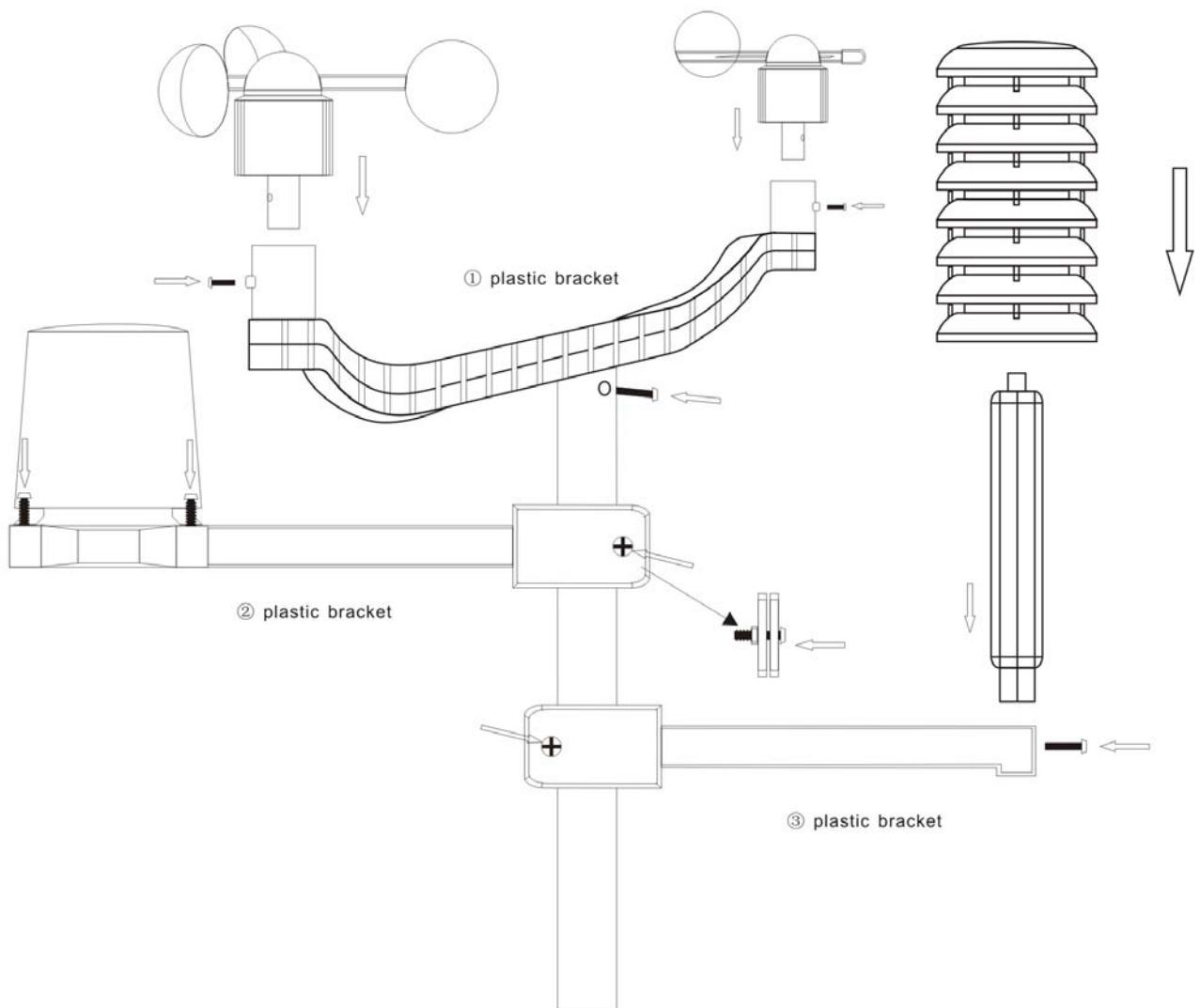


Note: please don't put in or take off the plug very offen, or put the plug outside in the air so long time to avoid any damage of the plug , if so, there will be bad connection.

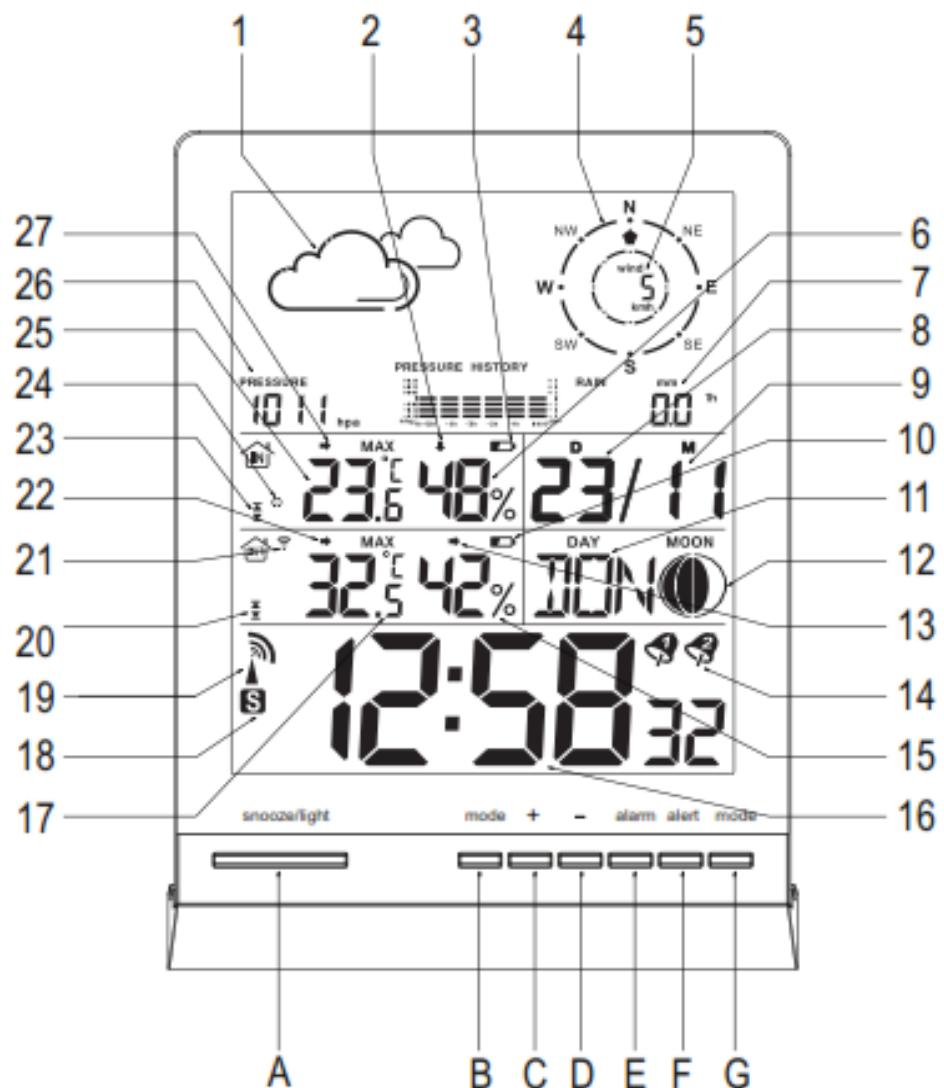
5. Mounting all the sensors onto the stainless steel mast and fix the whole parts at outdoor open area :

Note: please make sure all the cables are connected well into the sockets, per as below.

- Wind Speed Sensor ---} connect ---} Wind Direction Sensor ---} connect Thermo-Hygro Sensor
- Rain Sensor ---} connect ---} Thermo-Hygro Sensor



LCD OVERVIEW



1. Weather Forecast
2. Indoor humidity trend
3. Indoor low battery
4. Wind Direction
5. Wind Speed
6. Indoor Humidity
7. Rainfall
8. Date
9. Month
10. Outdoor low battery
11. Pressure History
12. Moon Phase
13. Day/Night indicator
14. Outdoor temperature
15. Outdoor humidity
16. Time
17. Outdoor temperature
18. Summer time
19. RCC symbol
20. Outdoor temperature alert
21. RF symbol
22. Outdoor temperature trend
23. Indoor temperature alert
24. Environment comfort index

11. Day of week	25. Indoor temperature
12. Moon Phase	26. Air pressure
13. Outdoor humidity trend	27. Indoor temperature trend
14. Dual alarm	

A = SNOOZE/LIGHT
B/G = MODE
C = +

D = -
E = ALARM
F = ALERT

INITIAL OPERATION

- After inserting the batteries, the main unit will connect with the outdoor sensor by RF signal.
The RF signal symbol at the out area will flash.
- This process takes about 3 minutes. Then the display shows the outdoor temperature /humidity/wind speed/wind direction/rainfall, in case of failure of reception, please press **ALARM** for more than 3 seconds to receive again.
- The automatic receiving of the DCF radio signal begins after 3 minutes of outdoor RF reception.
- This RCC reception process is going on, the flashing symbol **radio tower** logo appears in the time display area at the same time.
- Once radio signal receiving is successful, the display shows the symbol **radio tower** logo continuously no flashing.

If, due to bad reception, or no RCC automatic time reception is possible, follow the steps below manually.

Manual time set-up

(Please also follow the steps to choose some setting, such as 12/24hour, time zone, languages etc.)

- Press and hold key **MODE** for 3 seconds.
- The 12/24 hour flashing. Use + and - to select
- Press **MODE** to confirm.
- The display for the time zone is flashing. Use + and - to select the time zone (-12 to +12).

- Press **MODE** to confirm.
- The DM/MD flashing. Use + and - to select
- Press **MODE** to confirm.
- The display for the year is flashing. Use + and - to select the year.
- Press **MODE** to confirm.
- The display for the month is flashing. Use + and - to select the month.
- Press **MODE** to confirm.
- The display for the date is flashing. Use + and - to select the date.
- Press **MODE** to confirm.
- The display for the hour is flashing. Use + and - to select the hour.
- Press **MODE** to confirm.
- The display for the minutes is flashing. Use + and - to select the minutes..
- Press **MODE** to confirm.
- The language selection for the display of the weekdays is flashing. Use + and - to select the language.
- Press **MODE** to confirm
- The C/F for temperature flashing. Use + and - to select .
- Press **MODE** to confirm.
- The hpa/inhg for air pressure flashing. Use + and - to select .
- Press **MODE** to confirm.
- The mm/inch for rainfall and Kmh/mpg flashing. Use + and - to select .
- Press **MODE** to confirm.

Information:

- The clock automatically changes from set-up mode to time display mode if no keys are pressed for 20 seconds.
- Explanation for the time zone display:
You can manually adjust the clock to the time zone of a country (up to 1500km distance to Frankfurt/Main) where the clock receives the DCF signal but where the actual time differs from the time received.
If, e.g. the time in a given country is 1 hour ahead of the German time, set the time zone display to 01. The clock is now DCF controlled but the time is one hour ahead.

Daily alarm set-up

- Press **MODE** to switch from time display to A1 display
- Press and hold the key **MODE** for 3 seconds ,the flashing alarm time are shown
- The hour display of the alarm time is flashing. Use + and - to select the hour.

Press **MODE** to confirm.

- Then follow the minutes. Use + and - to select the minutes. Press **MODE** to confirm.
- The same setting as for A2.

Daily alarm on/off

- 1st press **ALARM** to activate the alarm 1 with alarm symbol showing.
- 2nd press **ALARM** cancel the alarm 1, then activate the alarm 2 with alarm symbol showing
- 3rd press **ALARM** to activate the alarm1 and alarm 2 with alarm symbol showing.
- 4th press **ALARM** cancel all the alarms

Information:

- The clock automatically changes from set-up mode to time mode if no keys are pressed for 20 seconds.
- The alarm sounds for 2 minutes if no key is pressed to stop it.

Snooze function

To activate the snooze function, follow the steps below :

- Press the key **SNOOZE/LIGHT**, while the alarm sounds, to activate the snooze function.
- If the snooze function is activated, alarm symbol is flashing.
- The alarm repeat after 5 minutes.
- The snooze function can be stopped by pressing any key.

12/24 hours mode

The time display can be in 12 (AM/PM) or 24 hours mode, please follow the manual set-up to select

°C/°F temperature display

The temperature display can be in °C or °F, please follow the manual set-up to select.

Max./ Min. for the indoor/outdoor temperature and humidity

Press + for displaying of indoor/outdoor max./min. of temperature and humidity, hold + for more than 3 seconds to clear up the max./min.

Temperature alert set-up

- Press “**ALERT**” for more than 3 seconds, the upper limit of inside temperature is flashing, use “+” and “-” to set the maximum alert temperature.
- Press “**ALERT**”, the lower limit of inside temperature is flashing, use “+” and “-” to set the minimum alert temperature.
- Press “**ALERT**”, the upper limit of outside temperature is flashing, use “+” and “-” to set the maximum alert temperature.
- Press “**ALERT**”, the lower limit of outside temperature is flashing, use “+” and “-” to set the minimum alert temperature.
- When the alert is activated, the alert symbol will be shown.

Temperature alert on/off

Press and hold the key **ALERT** to set the temperature alert on or off.

- Alert on: Temperature alert symbol shown in display
- Alert off: Temperature alert symbol goes out.

Information:

- The set-up process cannot be completed if the maximum temperature selected is lower than the minimum selected temperature.
- The minimum temperature selected must at least be 1°C below the maximum selected temperature.

Weather forecast



SUNNY



SLIGHTLY SUNNY



CLOUDY



RAINY



STORM

Note: as the weather is forecasted by air pressure only, the display will have discrepancy with the actual weather sometime.

Barometer and bar and data of history for the past 12 hour of air pressure

Air pressure can be in hPa and inHg , and have bar of the past 12 hours.

Wind speed in mph/kmh (0~256Kmh)

The wind speed can be shown in **mph** and **Kmh**, please follow the manual set-up to select **mph/Kmh**, the display of the speed is updated in case of the sensor updated every 1 minutes.

Wind direction

There will be 16 wind directions, the display of the direction is updated in case of the sensor updated every 1 minutes

Rainfall display (0~999.99mm)

- Rain fall can be shown in **mm** and **inch**, please follow the manual set-up to select the **mm/inch**.
- Press - to show the rainfall in 1 hour, press again 24 hours, then TOTAL.
- Press - for more than 3 seconds to clear up the volume accordingly, such as if showing 1 hour, clear up the data in 1 hour, others unchanged, if showing 24 hours, clear up the data in 24 hour, others unchanged.
- The max. of the rainfall is up to 999.99mm (99.99inch), the display is flashing in case of the max., you have to clear up the data by hand, otherwise, the data cannot be updated any more.

Illumination

Press the key **SNOOZE/LIGHT** to activate the display illumination for 8 seconds.

Moon phase display

The weather station uses saved data to show the moon phase



A B C D E F G H

A: New moon

B: increasing crescent

C: First half

D: increasing 3/4

E: Full moon

F: decreasing 3/4

G: Last half

H: decreasing crescent

Living space humidity

The weather station uses saved data to determine the humidity in the living space and shows the respective symbols.



Comfortable



Dry



Humid

Low battery condition display

The weather station displays the low battery condition symbol to remind the batteries of the weather station or the outdoor sensor need to be exchanged.

- Weather station low battery condition display: within indoor area of the display
- Outdoor sensor low battery condition display: in the outdoor area of the display

RF connection to the outdoor sensor

Press and hold the key **ALARM** for 3 seconds to search for outdoor sensor , the RF signal symbol at the outside area will flashing when trying to connect . RF reception is weaker in rooms with concrete walls (e.g. in the basement) and in office buildings, the distance will

be shorten if have interference. For extreme cases, please put the main unit near a window

Reception of radio controlled signal

- DCF radio signal search starts automatically about 3 minutes after battery exchange. The “radio tower” signal is flashing.
- Press +, - for more than 3 seconds to enter or quit the Radio controlled signal reception
- The clock synchronizes with the DCF radio signal automatically and daily from AM 1:00 to 3:00 to correct potential time deviations each hour. If the synchronization is unsuccessful (radio tower logo disappears), a further synchronization attempt is made From 4:00 and 5:00 until success. This process is repeated up until 5:00 AM. If still not success, daily reception stops.

Information:

- Flashing “radio tower” symbol stands for DCF radio signal reception started.
- Continuous “radio tower” symbol stands for DCF radio signal reception successful.
- Please observe a minimal distance of 2.5m to sources of interference such as televisions or computer screens.
- The radio signal is weaker in rooms with concrete walls (e.g. in the basement) and in office buildings. For extreme cases, please put the main unit near a window.
- There are less atmospheric disturbances at night. A radio time signal reception is usually possible at that time. One synchronisation per day is sufficient to keep the time display accuracy at 1 second.

Tip

You can adjust the time manually in case the clock cannot receive the DCF radio signal (due to interferences, large distance to the sender, obstructions like mountains, etc.) As soon as the radio signal can be received, the clock will be adjusted automatically.

Radio signal sender coverage up to 1500km distance to Frankfurt/Main.

PRECAUTIONS ON THE USE OF BATTERIES

- Discard a used battery in nature or garbage pollutes and prevents the recovery of recyclable materials.

It is therefore important to limit consumption of batteries and follow these guidelines:

- Focus on alkaline batteries (that last longer than the saline batteries) and when possible, rechargeable batteries

- Deposit batteries and accumulators in specific containers arranged among traders. For example, metals will be valued and polluted the environment because they contain heavy metals hazardous to health and the environment primarily (cadmium and nickel)

- The piles must installation by respecting the polarity indicated on the apparatus and the pile.

An incorrect positioning can is to damage the apparatus, is to cause escapes on the level of the pile, is to the extreme to cause a fire or the explosion of the pile.

- To ensure proper operation, the batteries must be in good condition. In case of abnormality in the functioning of the device, put fresh batteries
- Never attempt to recharge non-rechargeable batteries. They could run, warm up, causing a fire or explosion.
- Replace all batteries at the same time. Never mix zinc batteries with alkaline batteries or rechargeable batteries
- The batteries must be removed from the device
- Also, remove the batteries from your device if you do not use it for a long time, if the batteries may leak and cause damage.
- Never try to short-circuit the battery terminals
- Never dispose of batteries in fire, they might explode
- Charging of batteries is to be performed by an adult.
- Remove batteries from the device before reloading.
- We recommend an adult to supervise children when they change the batteries so that these instructions are complied with or to make himself the replacement of batteries.
- If a battery is swallowed, immediately consult a doctor or poison control center nearest you. Do not forget to carry the product with you.



The symbol opposite indicates that the electric and electronic components are the subject of a selective collection, it represents a dustbin on wheels barred of a cross. The electric and electronic products can contain substances having negative effects on the environment and health. Worn, they should not be thrown with domestic waste but to be imperatively recovered in the selective collections: dump, associations of social economy and interdependent.

[REDACTED] The selection of waste decreases the potential effects on the environment and human health due to the substances dangerous which can compose certain components electric and electronic.

Take an active part: to remove you not from the apparatuses with domestic waste!



Déclaration de Conformité (DoC)

Nous, Société Inovalley, Z.A La Chapelle Saint-Antoine, 37 rue Ampère, 95300 Ennery, France, déclarons sous notre seule responsabilité que le produit:

Marque : INOVALLEY

Nom commercial : Station météo professionnelle

Type: SM51PRO - Modèle: AOK-2829A

auquel se réfère cette déclaration est conforme aux exigences essentielles et aux autres dispositions

- de la directive pour la Compatibilité Electro-Magnétique EMC 2004/108/CE,
- et de la Directive Basse Tension 2006/95/CE et de la directive RTT&E (1999/05/CE) qui lui sont applicables.

Le produit est en conformité avec les normes et/ou autres documents normatifs suivants :

EN 301 489-3 V1.6.1 (2013-08)
EN 300 220-01 V2.4.1 (2012-05)

EN 301 489-1 V1.9.2 (2011-09)
EN 300 220-2 V2.4.1 (2012-05)

EN 62479 :2010

EN 300 330-2 V1.5.1 (2010-02)

EN 300 330-1 V1.7.1 (2010-02)

EN 55014-1 :2006/A1 :2009/A2 :2011

EN 55014-2:1997/A1:2001/A2:2008

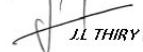
EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Lieu et date d'édition

Ennery, le 16 Décembre 2014

Le fabricant

INOVALLEY



J.L. THIRY (Président)